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Military Helicopter Exports: A Growing Security Issue

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An Intelligence Assessment

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GI 85-10193
July 1985

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Military Helicopter Exports: A Growing Security Issue [redacted]

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An Intelligence Assessment

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This paper was prepared by [redacted] [redacted] Office of Global Issues. Comments and queries are welcome and may be directed to the Chief, International Security Issues Division, OGI, [redacted]

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Military Helicopter Exports: A Growing Security Issue [redacted] 25X1

Key Judgments
Information available as of 28 June 1985 was used in this report.

Helicopters make up the only sector of the military export market likely to experience continued strong demand over the next 10 years, when 7,100 military helicopters will be sold. The military capabilities of several Third World countries will improve as their helicopter inventories grow. Exports of ground attack helicopters—which can be used for missions ranging from antiarmor to anti-insurgency— will lead the way as many of the 30 current users expand their fleets and at least 22 more create ground attack helicopter units. The major customers for military helicopters through the mid-1990s will include Saudi Arabia, Iraq, Iran, South Korea, China, East and West Germany, Czechoslovakia, and Turkey. [redacted] 25X1

Expansion of helicopter assets may prompt some recipients to be more assertive in military operations as a result of their improved ability to sustain logistic supply lines for both conventional and anti-insurgent warfare. The rapid deployment of troops and equipment in Third World countries, such as Jordan, Peru, Pakistan, Thailand, and North and South Korea, is hindered by poor road networks and mountainous terrain. These problems can be overcome by greater reliance on helicopters for transport functions. Specific areas of improvement include:

- *Antiarmor*. The proliferation of ground attack helicopters could enable several of the new operators to duplicate Syrian and Israeli antiarmor successes in the 1982 Lebanon conflict.
- *Counterinsurgency*. Several Latin American and East Asian countries are planning to enlarge their helicopter inventories to combat growing insurgent movements. [redacted] 25X1

The continuing strong demand for military helicopters is likely to benefit West European suppliers most. Preferential financing and a wide variety of light and medium transport helicopters and attack helicopters tailored to Third World needs will give West European manufacturers a competitive edge in the market. Soviet exports may decrease somewhat as some traditional customers, such as Iraq and Syria, turn to West European suppliers to meet their growing demand for agile ground attack helicopters. We expect US manufacturers to remain behind the Soviet Union and France in total aircraft delivered; only those few customers willing and able to pay premium prices for advanced technology helicopters are likely to turn to US suppliers. Licensed producers of helicopters in the Third World and Eastern Europe, such as Brazil, India, and Romania, are likely to take a more active role in meeting the continued strong demand for military helicopters [redacted] 25X1

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Military Helicopters: Structure of the Market

The vast majority of military helicopters exported internationally are newly produced aircraft. Used or refurbished aircraft account for only about 4 percent of sales because:

- *Most developed and Third World militaries established large helicopter fleets in the late 1960s through the 1970s and continue to use these aircraft. Until now there have been few retiring aircraft available for subsequent retransfer.*
- *New helicopters are generally less expensive to operate than older models, which require more extensive follow-on support and maintenance.* [redacted]

Producers

Only the United States and the Soviet Union produce the entire range of light-, medium-, and heavy-lift helicopters and specialized variants of these aircraft for attack and other purposes. The Soviet Mil Design Bureau has designed the MI series of medium- and heavy-lift helicopters, and the Kamov Bureau designs the Ka-25, -26, and -32 light and medium helicopters. There are four major producers in the United States—Hughes Aircraft, Boeing Vertol, Sikorsky, and Bell. Bell and Hughes are known for their light and medium models; Sikorsky and Boeing have specialized in medium and heavy rotorcraft. Industry observers believe that US helicopters are superior to Soviet models on the basis of the many technological breakthroughs in helicopter design and use—such as the tilt-rotor and mine countermeasure helicopter—that US manufacturers have instituted. [redacted]

West European firms produce only light- and medium-lift helicopters. The high cost and small international market for heavy-lift helicopters have kept European firms from producing helicopters of more than 35,000 lbs. maximum takeoff weight. France's Aerospatiale is the most prolific European producer, offering seven basic models on the international market. Italy and Great Britain have only recently begun domestic design and production of military helicopters, having relied in the past on manufacturing US aircraft under license or on coproduction with other European partners. Italy's Agusta has indigeneously developed the A-109 general purpose and A-129 antitank helicopters, and Westland in the United Kingdom has developed the Lynx-3 antitank and Westland 30 light-utility aircraft. West Germany's Messerschmitt-Bolkow-Blohm manufactures one basic aircraft—the BO-105—and plans to develop the PAH-2/HAC attack helicopter with Aerospatiale [redacted] 25X1

The Importance of the Export Market

The export market is of particular importance to West European helicopter manufacturers. Collectively, West European firms export 65 percent of their military production. France exports 76 percent of its production; Italy, 70 percent; West Germany, 57 percent; and the United Kingdom, 30 percent. Exports create economies of scale, making helicopters more affordable for domestic services. In addition, export revenues help fund research and development programs that have made European helicopters more competitive with US and Soviet aircraft. By contrast, manufacturers in the United States and the Soviet Union rely on sales to domestic armed forces to sustain national industries. The United States and the USSR exported some 15 and 20 percent of their military production, respectively, over the past decade. [redacted] 25X1

Because of the need for extensive follow-on support for helicopters, exports of spare parts and follow-on equipment provide the most revenue for helicopter manufacturers. The inherent vibrations and large number of moving parts in a helicopter create a high demand for replacement parts, especially gears, engines, and electronics equipment. [redacted] 25X1 25X1 *the spare parts market for helicopters is more lucrative than for other aircraft and that, within five years after delivery, an operator spends an amount equal to the initial purchase price on spare and repair parts.* [redacted] 25X1 [redacted] *support for the 20-year operational life of a military helicopter costs four to six times the original cost. Consequently, we believe that the revenues helicopter manufacturers earn far exceed the $15 billion spent on initial purchase since 1974.* 25X1

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Military Helicopter Exports: A Growing Security Issue [redacted]

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Introduction

During the next 10 years, exports of military helicopters will remain strong in spite of declining global demand for other major weapon systems.[1] This assessment examines the factors that support this outlook; estimates the impact on suppliers and on military capabilities, especially in the Third World; covers all exporters; and includes purchases by the Third World, Western Europe, and the Warsaw Pact [redacted]

The Past Decade—1975-84

Exports of military helicopters have grown tremendously during the past 10 years; foreign sales totaled nearly 7,000 aircraft valued at approximately $15 billion. Global inventories expanded by 62 percent to some 11,000 helicopters (figure 1), including a doubling of helicopters in the Third World. The growth of national inventories is attributable to:

- The recognized ability of helicopters to perform a variety of combat missions, including troop and equipment transport, observation, evacuation, antisubmarine warfare (ASW), and battlefield fire support.

- Regional tensions in South Asia, the Middle East, and on the Korean Peninsula. Pakistan and India, the frontline states of the Arab-Israeli conflict, and the two Koreas collectively bought 2,243 helicopters over the decade, accounting for half of Third World purchases and one-third of all international sales. [redacted]

[redacted]

Type of Helicopters

In this assessment, helicopters are categorized into three basic weight-lift classes:
- Light. *Up to 10,000 lbs. maximum takeoff weight.* 25X1
- Medium. *Up to 35,000 lbs. maximum takeoff weight.*
- Heavy. *Above 35,000 lbs. maximum takeoff weight.*

[redacted] 25X1

Most helicopters perform traditional observation, evacuation, and troop and equipment transport duties, but several models have been configured for specialized missions as their combat role has been redefined and expanded. These include:

- Ground attack. *Light- or medium-lift helicopters equipped with machineguns, grenade launchers, rockets, antitank guided missiles (ATGMs), and—more recently—air-to-air missiles.*

- Assault. *Armed medium-lift helicopters that can carry five to 20 troops into combat.*

- Naval attack. *Light- or medium-lift helicopters fitted with search radars and sea-skimming missiles—such as the Exocet AM39 or Sea Skua—that can detect and destroy enemy warships or resupply vessels.*

- Antisubmarine warfare. *Light- or medium-lift helicopters carrying sonars and guided air-launched torpedoes capable of identifying and destroying submerged submarines.* 25X1

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- Mine countermeasures. *Heavy-lift helicopters with towed magnetic mine-detection equipment.* [redacted]

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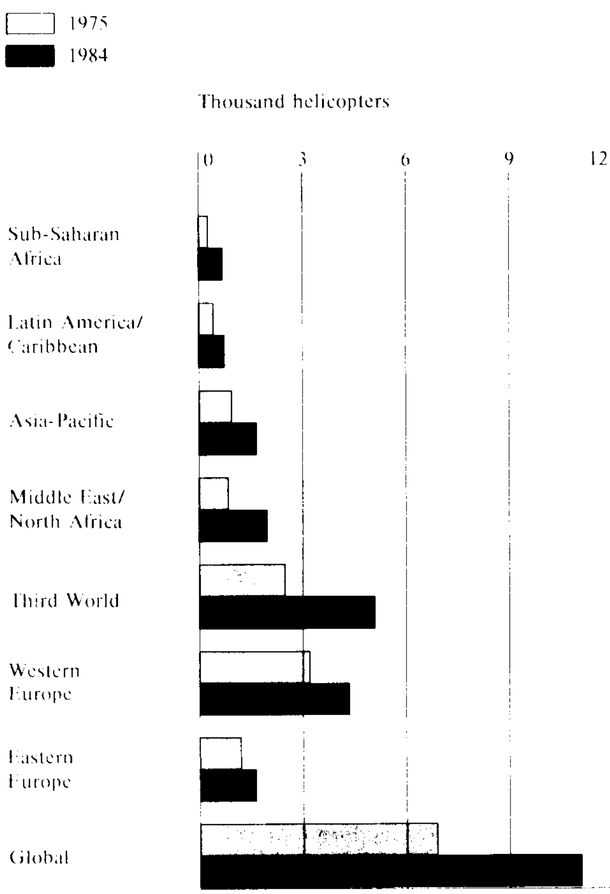
Figure 1
Global Military Helicopter Inventory Growth, 1975-84[a]



[a] Excludes US and Soviet inventories.

Helicopters configured for specific attack or electronic countermeasure missions have become important export items. Thirty countries bought 922 ground attack helicopters, accounting for 13 percent of total export sales. Moreover, 244 ASW, naval attack, mine and electronic countermeasures helicopters were sold to 22 countries, many of them Third World nations, adding these unique capabilities to their armed forces for the first time. For example:

- Iran received nine RH-53 mine countermeasures helicopters from the United States.
- Libya purchased 27 MI-14 ASW helicopters from the Soviet Union.
- Syria received 18 MI-14s and four MI-8s from the USSR for ASW and electronic countermeasures missions.
- Nicaragua received 12 MI-25s in late 1984 that significantly enhanced the Sandinista's counterinsurgency capability and bolstered any effort it might make to operate beyond its borders. 25X1

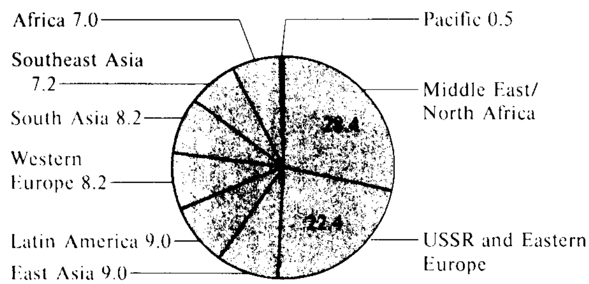
Recipients
Middle Eastern and North African countries bought the most helicopters over the past decade (figure 2). Large purchases by a few countries typified purchasing patterns. Syria, Iran, and Iraq, for example, imported 350, 480, and 400 aircraft, respectively, replacing war losses and greatly expanding inventories. Warsaw Pact nations also represented a sizable export market for military helicopters. East Asian, Pacific, and South Asian countries collectively were the next largest regional market, accounting for 18 percent of exports. Latin America—where Peru continued to import Soviet equipment and Nicaragua expanded its medium-lift inventory in addition to the squadron of Hind gunships—was the fourth-largest market. Inventory expansion by countries on NATO's "southern flank" made Western Europe the fifth-largest regional market. Finally, inventory expansion in Africa—where Angola was the largest recipient of Soviet helicopters—rounded out the market 25X1

Suppliers
The Soviet Union and France were the leading exporters of military helicopters during the last 10 years (table 1 and figure 3). The Soviets exported 1,940 aircraft, primarily to the Middle East and to close allies in Eastern Europe and Southeast Asia. France's Aerospatiale was a significant exporter, selling more than 1,620 helicopters to 57 countries. No single region dominated French sales; exports were balanced between Middle Eastern, Asian, and East European countries. Manufacturers in the United States delivered 1,334 aircraft, relying on sales to customers in 25X1

Figure 2
Recipients of Exported Military Helicopters, 1975-84

Percent

Total = 7,040



[redacted]

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Warsaw Pact Military Helicopter Procurement

Deliveries of military helicopters within the Warsaw Pact amounted to more than 1,200 helicopters over the past 10 years—17 percent of global transfers. Most of this trade consisted of Soviet purchases of 945 MI-2s from Poland, where they have been produced under license since the 1950s. The Soviet Union delivered 254 helicopters to other Warsaw Pact allies; East Germany received almost half of these. The Warsaw Pact was not a totally closed market; Romania purchased and produced more than 200 Alouettes and Pumas under French license. [redacted]

Asia, the Middle East, and Western Europe. Poland was the fourth-largest supplier, providing helicopters to Libya and North Korea, in addition to the Soviet Union. Italy, West Germany, and Great Britain together accounted for 12 percent of export deliveries. [redacted]

Continued Strong Demand—1985-94

We estimate that exports of military helicopters will remain strong, as some 7,100 [2] helicopters will be exported through the mid-1990s. Many of these exports in Western Europe will be replacement aircraft, thereby slowing the rate of global inventory growth. We do not believe that the economic problems facing many LDCs will drastically diminish helicopter exports. Attache reports indicate that several LDCs are committed to expanding and modernizing their helicopter fleets and have already approved funding for these programs. Furthermore, the initial cost of helicopters is not as high as that for other major equipment such as jet fighters and warships. Several factors will contribute to continued strong exports of military helicopters over the next 10 years [redacted] 25X1

Continued Inventory Expansion

Many Third World armed forces do not have full helicopter fleets and plan to make significant helicopter purchases by the mid-1990s. [redacted] 25X1 which will more than triple their helicopter force. South Korea plans to add more than 95 attack, observation, and medium transport helicopters to its inventory of 254 purchased since 1974. Jordan and Ecuador also recently agreed to large purchases of French Pumas, Ecureuils, and Gazelles that will increase their respective inventories by 200 and 50 percen[redacted] 25X1

The Need To Replenish Inventories

Most West and East European militaries established large helicopter forces in the 1960s and must now replace their aging aircraft.[3] West Germany, for

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example, must replace most of its 300 aging UH-1 medium- and CH-53 heavy-lift helicopters. Spain, Canada, Belgium, East Germany, and Czechoslovakia represent other large European replacement markets, totaling nearly 600 aircraft. In the Third World, China has begun replacing nearly 300 MI-4s purchased from the Soviets in the 1960s and early 1970s with small purchases of US S-70Cs and French Pumas. Elsewhere, Thailand must replace about 90 utility helicopters, and South Africa will be in the market for 80 light-lift, 45 medium-lift, and 10 ASW helicopters by the early 1990s

New Roles

Export sales are likely to grow somewhat as helicopters fill roles previously reserved for fixed-wing aircraft or armored vehicles.

for instance, some Swiss defense planners have suggested replacing aging Hawker Hunter jet fighters with attack helicopters in light of increasing doubts about the survivability of fixed-wing ground attack aircraft on the European battlefield. Other attache reports indicate that some Third World countries are considering attack and transport helicopters to fill roles now assigned to armored forces. The widespread substitution of helicopters for other weapon systems, however, will be tempered by the entrenched preferences of air and ground forces commanders for traditional fixed-wing aircraft, tanks, and armored personnel carriers. 25X1

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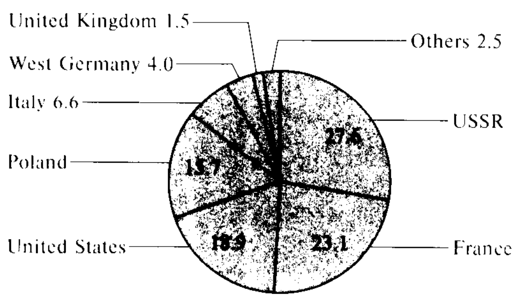
Figure 3
Exporters of Military Helicopters, 1975-84

Percent

Total = 7,040



[redacted]

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The Soviet MI-8 Hip was the most widely exported helicopter over the past 10 years. More than 1,170 were sold to 35 countries. [redacted]

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Areas of Growth

The continued strong demand for ground attack helicopters will play an important role in shaping future exports of all helicopters. Over the next decade, ground attack helicopters will account for approximately the same percentage of total sales as the past decade—around 13 percent—but new helicopter and weapon systems technologies will make these aircraft more capable than earlier models. [redacted] we expect several developed and Third World militaries that currently field relatively large helicopter fleets—between 150 and 250 aircraft—to improve troop and equipment transport and shoreline defense with the purchase of heavy-lift and naval warfare helicopters. [redacted]

Attack Helicopters

We estimate that exports of ground attack helicopters will drive the continued strong demand for military helicopters.[4] Exports will approach 900 aircraft, as many of the 30 current operators expand their inventories and at least 22 more countries create antitank helicopter units. Most new buyers will be attracted by the heavy firepower and maneuverability of attack helicopters. Major factors generating the increasing demand for these helicopters include:

- The more than doubling of Third World tank and armored personnel carriers (APC) inventories since 1974. Tank inventories have grown from 16,900 to 37,500, and APC fleets have expanded from 17,500 to 44,000 vehicles during the same period. 25X1 25X1

- The demonstrated effectiveness of antitank helicopters in recent conflicts. During the 1982 Lebanon war, for example, both Syria and Israel scored impressive victories with attack helicopters against ground armor. [redacted] 25X1 25X1

[redacted]

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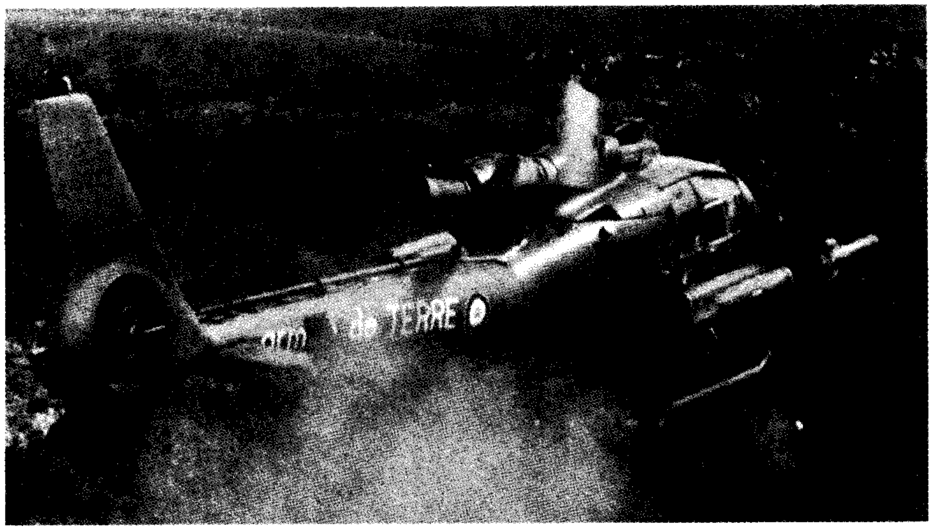
Many Third World countries are attracted to the versatility and firepower that antitank helicopters—such as the French Gazelle and Italian A-129—can provide.



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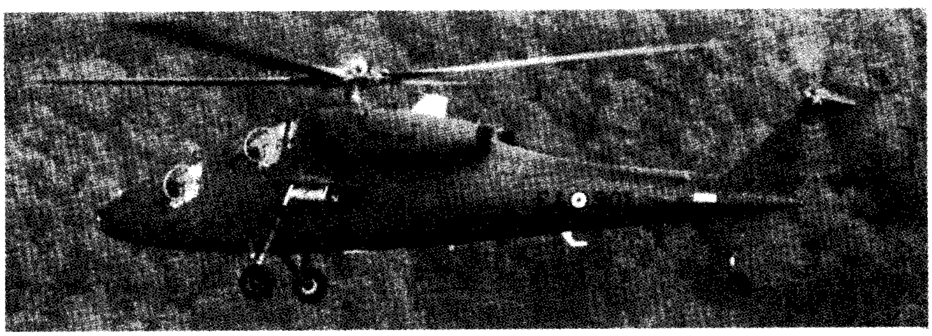

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Several countries that previously did not possess heliborne ground attack capabilities have recently purchased aircraft or plan to purchase them over the next decade. For example:

- The Jordanian Air Force has requested 24 AH-1 gunships from the United States, [redacted]
- Pakistan received its first part of a total shipment of 20 AH-1s in January of this year.
- Sweden recently decided to purchase 20 BO-105 antitank helicopters from West Germany, [redacted]
- Denmark, the Netherlands, Belgium, and Switzerland hope to establish attack helicopter units of between 12 and 28 aircraft and are evaluating the British Lynx-3, the US Hughes 500 MD, and the West German BO-105 for possible procurement, according to press reports [redacted]

In addition to these countries, we believe several others will also buy antiarmor helicopters. Within NATO, Greece, Turkey, and Canada are likely to establish attack helicopter units. Potential Third World recipients include China, Argentina, Yugoslavia, South Africa [5] and possibly Indonesia, Thailand, Taiwan, and the Philippines. Each of these countries either fields a large, professional military, perceives an imminent threat, or is in the process of a major modernization of its helicopter inventory. We believe most of these countries will create relatively small attack helicopter units of 12 to 24 aircraft, but some, such as China and India, may place larger orders for 50 to 70 aircraft. [redacted]

Countries that purchase ground attack helicopters will also need to buy observation helicopters to work with their attack units, thereby further expanding the market. Observation helicopters reconnoiter the battle area and function as a command and control link between ground troops and attack helicopter pilots.

Some militaries purchase nearly as many scout helicopters as attack aircraft. [redacted] according to embassy reports. [redacted] 25X1

Counterinsurgency

The demonstrated effectiveness of helicopters against insurgents will also boost future export sales. The helicopter's mobility and ability to operate at low altitudes enable government forces to place troops into contested areas and concentrate their firepower against insurgent forces in rural, jungle, or mountainous areas more effectively than with fixed-wing aircraft or armored vehicles. Furthermore, helicopters do not need the extensive runway, pilot training, and support facilities required by fixed-wing fighters and can therefore be directed against a rapidly developing threat more quickly. Some Third World armies are establishing special anti-insurgent groups and equipping these units with helicopters. For example, the Ecuadorean Army has become increasingly concerned about internal security problems as the possibility of a major border confrontation with Peru diminishes. [redacted] 25X1

Other Third World countries in Latin America and East Asia have also taken steps to enhance their counterinsurgent capabilities through expansion of their helicopter inventories:

- Peru recently requested 12 BK-117 and four BO-105s from West Germany for use against Sendero Luminoso insurgents around Ayacucho.
- Thailand is negotiating with a US firm for the purchase of at least two CH-47 troop-transport helicopters.
- Colombian officials approached the United States to buy 12 UH-1 helicopters, following a terrorist attack by M-19 last summer.
- The director of the Mexican Marine Corps wants to buy an undisclosed number of utility helicopters for use by antiguerrilla warfare units. [redacted] 25X1

[5] The UN embargo on arms sales to South Africa makes a direct purchase of attack helicopters from an established supplier doubtful. The South African Air Force probably will purchase components and fit ATGMs to existing light utility helicopters [redacted]

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Heavy-Lift and Naval Helicopters

Heavy-lift helicopters will also contribute to a larger export market, but on a considerably smaller scale than attack helicopters. Heavy-lift rotocraft have constituted only a small percentage of the export market—2 percent since 1974—because of their:

- *High unit cost.* A CH-47 or CH-53 costs between $14 million and $25 million apiece, and the Soviet MI-26 sells for approximately $12 million.
- *Unsuitability for national defense purposes.* Few Third World countries need to deploy rapidly large numbers of troops or heavy equipment. [redacted]

Nonetheless, we believe sales of this category of helicopter will pick up as some developed and a few Third World countries with large inventories move to establish more comprehensive helicopter capabilities. [redacted] We believe that China will develop into a sizable market. The People's Liberation Army currently operates only three Soviet MI-10 Hooks, and the acquisition of heavy-lift helicopters would complement the overall modernization of the PLA's helicopter inventory. Moreover, the Indian Air Force has expressed an interest in purchasing Soviet MI-26 helicopters. [redacted]

Naval attack and antisubmarine warfare helicopter exports will also increase but will be limited to countries fielding relatively large navies. For example, the Secretary of the Mexican Navy has approved the installation of a helicopter platform on each of the Navy's four Aquila-class frigates and the purchase of four British antisubmarine Lynx helicopters. Similarly, the Brazilian Navy is considering building a carrier fitted with helicopters instead of fixed-wing aircraft. [redacted]

Outlook for Suppliers

Helicopter purchases over the next 10 years should favor West European manufacturers that offer attractive financing and a wide variety of aircraft to meet customer demands. Sales of US helicopters are likely to diminish somewhat, as only those few Western customers willing and able to pay premium prices will turn to Washington for advanced weapon systems. Traditional Soviet clients, such as Syria, Libya, and Iraq, should continue to purchase most of their transport helicopters from Moscow. The gap between level US and Soviet sales and growing demand will be filled by emerging suppliers in Eastern Europe and the Third World, who in the past have limited their helicopter production for the most part to domestic requirements. [redacted] 25X1

Western Europe

West European helicopter manufacturers should dominate the military export market over the next 10 years, according to attache reports [redacted] The competitive position of West European producers in the market will be enhanced by government programs designed to bolster the ailing sectors of their national defense industries. Declining demand for their jet combat aircraft and naval warships, for example, has prompted West European governments to increase direct subsidies and soft loans to all of their domestic arms industries, including helicopter manufacturers. More liberal government financial aid will allow West European producers to offer financially strapped Third World recipients preferential financing packages and to increase their research and development efforts. Furthermore, we expect West European manufacturers to benefit from the trend in Europe to replace light and medium transports and attack helicopters. [redacted]

[redacted]

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The Civil-Military Relationship 25X1

The demand for civil helicopters plays an important role in the military helicopter export market. On the one hand, the sale of civil helicopters—which, minus weapons and other equipment, are often identical to military models—creates longer production runs and economies of scale, thereby reducing unit costs of military helicopters. The availability of civil helicopters also allows Third World countries to circumvent restrictive arms export policies, avoid potentially embarrassing arms transfers, and enhance their military capabilities. Civil model helicopters can perform important military transport and observation duties and are easily adapted for combat missions with the addition of guns, rocket pods, or guided missiles. [redacted] 25X1

Production

The civil market for helicopters is acquiring increasing importance for helicopter manufacturers. According to aerospace industry studies, civil deliveries accounted for only 19 percent of all non-Communist helicopters produced in the 1960s. The proportion doubled during the 1970s, and non-Communist civil deliveries are projected to make up 63 percent of all deliveries over the next 10 years. For the Soviet Union, conversely, civil production has decreased. The extensive use of helicopters to transport equipment and workers boosted civil production to 75 percent of all production during the 1960s. By 1980 this proportion had fallen to 10 percent as the Soviet's military helicopter inventory expanded. The longer production runs for older Soviet-model helicopters to meet civil demand have played an important role in making Soviet helicopters cheaper than their Western counterparts. [redacted] 25X1

The growing importance of the civil helicopter market could, ironically, cause the price of military helicopters to rise in the future. In the past, helicopters were designed principally for military purposes and were easily converted for the civil market. Now, however, the civil market demands greater reliability, safety, comfort, and lower acquisition and maintenance costs; the military programs stress survivability, low life-cycle costs, reduced detectability, and enhanced maneuverability. The growing differences between these two distinct markets have forced helicopter manufacturers to specialize their military and civil helicopter production. We believe this could result in longer leadtimes for military helicopter development, increased research and development expense, and generally higher unit costs. [redacted]

Security Implications

The sale of civil model helicopters provides a convenient mechanism for suppliers and recipients to mask politically sensitive weapon sales or circumvent restrictive arms export policies. Civil airframes can usually be converted for combat purposes with the addition of electronic equipment and rocket pods, guided missiles, or machineguns. [redacted] 25X1

Furthermore, civil model helicopters require few alterations to perform important military transport or observation missions. Consequently, several countries have turned to the civil market to meet their military helicopter requirements:

[redacted] 25X1

- *Iraq bought 24 commercial BO-105s in 1982 from Spain, which produces the aircraft under West German license. The aircraft were delivered in an unarmed version to circumvent Bonn's strict arms export policies forbidding sales to areas of tension. The Iraqi armed forces uses approximately 10 of these aircraft for attack purposes and the remainder in a utility role.*

- [redacted] 25X1 25X1 25X1 *These helicopters are nearly identical to the Hughes 500 MDs coproduced in South Korea and used by the South Korean military forces, making them ideal for infiltration missions.* [redacted] 25X1

South Asia and the Pacific. France and West Germany recently agreed to joint development of the PAH-2/HAC antitank helicopter, which will begin production in the early 1990s. Eurocopter—the organization created to manage development of the helicopter—was established in Paris under French law. We believe Bonn and Paris agreed to this arrangement—similar to the management structure for the Franco-German Alpha jet and Euromissile programs—to expedite exports of the aircraft that could otherwise be halted by West German arms export restrictions.

- *New Markets*. Licensing arrangements with US firms restricted Agusta and Westland from exporting helicopters to East Asia. Now, however, these firms are aggressively exporting domestically designed and produced helicopters. Italy's Agusta, for example, recently announced that it will assign permanent representatives to Singapore to push sales of its A-109 and A-129 helicopters in Southeast Asia. We expect Britain's Westland to be more active in exporting its indigenous models—the Westland 30 and Lynx-3—to East Asia and the Middle East [redacted]

In addition to exporting airframes, West European armament manufacturers offer the weapon systems and ancillary equipment needed to configure helicopters for armed missions. The Euromissile consortium, for example, will introduce the HOT-2 missile with an improved warhead by 1987 to replace the current HOT antitank guided missile and is developing a third-generation missile to replace HOT-2 in the early 1990s. In addition, the success of the Exocet in the Falklands conflict has heightened Third World interest in antiship missiles. West European missile producers dominate the market for sea-skimming antiship missiles launchable from helicopters with the British Sea Eagle and Sea Skua, the French Exocet AM-39 and AS-15TT, the Italian Marte, and the Norwegian Penguin (table 2). [redacted] the Italian firm FIAR is working on a new low-cost, look-up/look-down radar for use on fixed-wing aircraft and helicopters. Company representatives have stated that the radar system is tailored for the export market, designed to give old planes new capabilities at the comparatively modest cost of less than $1 million per system. [redacted]

Finally, we believe West European manufacturers will sell attack helicopters to several countries that in the past have purchased a majority of their helicopters from the Soviet Union. Iraq, for example, is reportedly dissatisfied with the MI-25 because of its poor maneuverability and maintenance problems and has already expressed interest in buying European aircraft. [redacted]

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Soviet Union and Poland

We believe Soviet exports will slip slightly over the next 10 years, but most of Moscow's clients will continue to purchase Soviet helicopters. Past Soviet clients, such as Iraq, Libya, Syria, and Vietnam, will buy the bulk of their transport helicopters from Moscow because of their political alignment and established helicopter support facilities and training programs. [redacted] that Soviet helicopters are attractive to traditional customers because they are considerably less expensive than Western aircraft—on average half to two-thirds the cost—and are considered reliable. Soviet helicopters are cheaper because of the relatively simple production technologies used and the long production runs needed to fill domestic orders. [redacted] for example, that an MI-26 Halo heavy-lift helicopter costs about $12 million, or one-half the price of a comparable Western helicopter—the Sikorsky CH-53. The Iraqi Air Force reportedly paid only $500,000 for each MI-8 helicopter. The Iraqis do not attempt to overhaul or make extensive repairs to damaged or wornout aircraft because of the low price [redacted]

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We believe the Soviet Union will offer its most advanced attack helicopter—the MI-28 Havoc—to counter clients' interest in Western models. The Havoc incorporates target acquisition and night vision equipment and has been designed for better acceleration and agility than the cumbersome Hind. We

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Table 2
Helicopter-Launched Sea-Skimming Missiles

[redacted]

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expect the first offers of this helicopter outside the Warsaw Pact to go to Iraq and Syria. The cost of the Havoc, however, probably will approximate those of Western equipment. We believe the use of new technology subsystems in the Havoc and other new generation Soviet helicopters will drive up their unit costs,[6] thereby reducing the cost advantage Soviet helicopters now have over Western aircraft. [redacted]

Barring drastic political changes in the countries that now own Western helicopters, none of these countries is likely, in our view, to place large orders for Soviet equipment. For example, Malaysia has recently shown an interest in acquiring Soviet helicopters to redress the growing trade imbalance between Kuala Lumpur and Moscow. A Malaysian delegation visited Moscow and was shown the MI-8, MI-17, and MI-26.

[redacted]

[redacted] 25X1

Malaysia will continue to purchase Western helicopters and may use the Soviet visit to pressure Western manufacturers to lower their prices. Malaysian officials have reportedly balked at the purchase of Soviet helicopters because it would necessitate establishing a Soviet logistic support system and accepting dependence for spare parts on Aviaexport—the only source of Soviet support equipment to export recipients. 25X1

[redacted] 25X1

We believe Poland's position in the international market will be sustained through the production of the W-3 Sokol, which will replace the MI-2 as Poland's main production item [redacted] 25X1

[redacted] 25X1

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Implications for the United States

The proliferation of attack helicopters could pose a serious threat to US interests. We believe the introduction of this capability into many Third World militaries will significantly increase their ability to conduct antiarmor operations. During the Lebanon conflict, for example, Israeli and Syrian helicopters equipped with antiarmor missiles destroyed a number of tanks and APCs. We believe Israeli and Syrian successes could be duplicated by some other Third World armies possessing attack helicopters. Furthermore, many attack helicopters available on the international market today have night vision equipment and mast-mounted sights not avaliable on earlier models. Night vision equipment eliminates the need for flares or other illuminating devices, thereby giving attacking units greater protection and flexibility; mast-mounted sights make helicopters less susceptible to attack by permitting fire from concealed positions. [redacted]

The expansion and modernization of Third World helicopter inventories will result in generally improved mobility of the affected armed forces. The rapid deployment of troops and equipment in Third World countries, such as Jordan, Peru, Pakistan, Thailand, and North and South Korea, is hindered by poor road networks and mountainous terrain. These problems can be overcome by greater reliance on helicopters for transport functions. Expansion of helicopter assets will allow many of these countries to move troops quickly from one region to another and sustain logistic supply lines for both conventional and anti-insurgent operations. [redacted] for example, the South Korean Army Chief of Staff views the continued expansion of Korea's helicopter inventory as necessary for quick movement of special forces and commando units to critical battlefield areas. [redacted] 25X1 25X1

As an exporter, the United States will, we believe, maintain significant helicopter exports with established customers, but exports will not expand over the next 10 years. US manufacturers have lost one of their largest customers, Iran, which received nearly 200 US attack, utility, heavy-lift, and mine countermeasure helicopters from 1975 through 1979. This loss, however, may be balanced by planned modernization and expansion of helicopter forces in South Korea, Saudi Arabia, and possibly China. Most foreign customers will be attracted to US systems by their technological edge over competing aircraft. The Chinese Air Force, for example, chose the Sikorsky S-70C over a comparable French model because of its superior speed, rate of climb, and service ceiling. The technological advantages of US systems, however, will be offset by their generally higher costs. [redacted] 25X1 25X1 25X1

US security assistance officials may receive more frequent requests for surplus helicopters as US armed forces modernize their medium-lift helicopter force. We believe Latin American, Southeast Asian, and Pacific countries will be the most frequent requesters of aging UH-1–series helicopters, and many of these helicopters may be used to combat insurgent forces. Costa Rica, for example, hopes to purchase 20 surplus UH-1Bs and may configure them as gunships equipped with portal machineguns. [redacted] The significance of this sector of the market will be limited somewhat, however, by the inadequate support facilities and pilot shortages facing many of these countries. [redacted] 25X1 25X1 25X1

Appendix A

Military Helicopter Exports, 1975-84

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Appendix B

Projected Military Helicopter Deliveries Through 1995 by Region

Table B-1
Projected Military Helicopter Deliveries to [redacted]

25X1

[redacted]	Light	Medium	Heavy	Attack	Naval Warfare
	565	**541**	**106**	**365**	**71**
	25	15			
	75	6		28	
	40	70		48	35
	6	10		12	12
		200	100		
	30	20		15	
	10	10			
	70			24	
	10	10		12	
	80	30	6	30	
	24	10		20	20
	100			28	
		60		28	4
	95	100		120	

[redacted]

25X1

Table B-2
Projected Military Helicopter Deliveries

25X1

	Light	Medium	Heavy	Attack	Naval Warfare
[redacted]	**241**	**912**	**62**	**319**	**39**
	15	85			
		10			
		100		24	5
	30	150	30	60	
	60	150		120	
		110	20	24	
	10	18		24	
	10			12	
	10	20			
		100		20	
	10	15			
		15			
	5				
	35	54	12		24
	30	40		35	10
	15				
	6	10			
		25			
	5	10			

[redacted]

25X1

Table B-3
Projected Military Helicopter Deliveries to [redacted]

25X1

[redacted]	Light	Medium	Heavy	Attack	Naval Warfare
	480	**635**	**115**	**345**	**64**
		30		12	
	55	40			20
	5				
	5				
	10	5			
		200	20	72	
	50	20	10	48	10
	25	30		24	
	50		55	72	12
	35	15		12	
	5				
	10	15			
	40	10	5	20	
	20	15		12	
		10	2		
	10				
	100	40		21	12
	30	20			
	10	50	3	12	10
	20	90		28	
		5			
		30	20	12	

[redacted]

25X1

Table B-4
Projected Military Helicopter Deliveries

25X1

	Light	Medium	Heavy	Attack	Naval Warfare
	241	**227**		**30**	**22**
	10	20		12	10
	4				
	30	30			5
	15	15			
	20	20			
		20			
	30	10		6	
	5				
	15	5			
	10	30			
		10			
		5			
	10	10			
	20				5
	12	12		12	
		10			
	5				
	25	15			
		5			2
	30	10			

25X1

Table B-5
Projected Military Helicopter Deliveries

25X1

	Light	Medium	Heavy	Attack	Naval Warfare
	195	**117**	**3**	**20**	**12**
	20	15			
	10				
	2				
		5			
	2				
	5				2
	5	2			
	3	2			
		5			
	5				
	15				
	3				
		3			
	6				
			3	20	
	3				
	2				
		5			
	80	50			10
		20			
	4				
	20				
	10	10			

25X1

Table B-6
Projected Military Helicopter Deliveries

25X1

[redacted]

	Light	Medium	Heavy	Attack	Naval Warfare
	1,260	**70**		**50**	
	5				
	40			10	
	160			8	
	65	20			
	10	30			
		20		8	
	30			24	
	950				

[redacted]

25X1